

REMARKS

Applicants request reconsideration of the above-identified application in view of the foregoing amendments and the following remarks.

Claims 1-2, 4-7, and 9-10 were pending in the present application at the time of the Office Action.¹ Applicants have canceled claims 2, 4-5, 7 and 9-10 herein, without prejudice. Applicants have amended claims 1 and 6 herein to more particularly point out and distinctly claim applicants' invention. Applicants have amended claim 1 to include all the limitations of canceled claims 2 and 5. Applicants have amended claim 6 to include all the limitations of canceled claims 7 and 10. No new matter has been introduced. The amendments of claims 1 and 6 are supported in originally filed claims 2, 5, 7 and 10, and in the specification at page 4, lines 27 to page 5, line 12, page 6, lines 23-27, page 9, line 31 to page 10, line 2 and page 22, lines 10-12.

Claims 1 and 6 stand rejected under 35 U.S.C. 112, second paragraph. The Examiner contends that the term

¹ Claims 3 and 8 were canceled in an Amendment under Article 34. Claims 1, 2, 6 and 7 were also amended in that Amendment.

"main component" renders Claims 1 and 6 indefinite. Applicants have amended Claims 1 and 6 to delete the phrase "as a main component thereof" to overcome this rejection.

Claims 2 and 7 stand rejected under 35 U.S.C. 112, second paragraph. The Examiner contends that the term "a peeling force" in claims 2 and 7 render these claims indefinite. Although applicants have cancelled claims 2 and 7, the limitations of these claims have been incorporated into newly amended claims 1 and 6. Applicants have amended claims 1 and 6 to exclude the phrase "measured by a peeling force" to overcome this rejection.

Claims 4 and 9 stand rejected under 35 U.S.C. 112, second paragraph. Applicants have canceled claims 4 and 9, thereby rendering moot rejection of these claims under 35 U.S.C. 112, second paragraph.

The Examiner also contends that in claims 5 and 10, the phrase "the side-chain crystallizable polymer having a melting point which occurs within a temperature range narrower than about 15°C" was unclear. The Examiner suggests that for purposes of this examination, the phrase was presumed to mean that the polymer has "a first order melt transition range of less than about 15°C." Although applicants have canceled claims 5 and 10, this phrase "a first order melt transition

range of less than about 15°C" has been incorporated into amended claims 1 and 6. Applicants believe these claim amendments overcome the rejection under 35 U.S.C. § 112, second paragraph.

Claims 1-2 and 4 stand rejected under 35 U.S.C. 102(b) as being anticipated by Schmitt et al. WO 92/13901 ("Schmitt"). The Examiner contends that Schmitt discloses a pressure-sensitive adhesive, a side-chain crystallizable polymer meeting the molecular weight, structure, and amount limitations of claim 1. The Examiner further states that Schmitt also teaches an adhesive that meets the requirements of claim 4 and inherently meets the adhesive properties of claim 2. Claim 4 has been canceled, rendering moot its rejection. Claim 2 has been canceled, but the limitations of claim 2 have been incorporated into currently amended claim 1. Applicants traverse the claim rejection of amended claim 1.

Applicants respectfully submit that currently amended claim 1 is patentable over Schmitt. Currently amended claim 1 recites a workpiece retainer comprising a pressure-sensitive adhesive and a side-chain crystallizable polymer, the side-chain crystallizable polymer (1) being present in an amount of about 1% to about 30% by weight (2) including an acrylic acid ester and/or methacrylic acid ester which has a

straight-chain alkyl group including 16 or more carbon atoms as a side chain, (3) having a molecular weight of about 2,000 to about 15,000, and (4) having a first order melt transition range of less than about 15°C.

As described in the specification of the present invention, the effect of the composition in amended claim 1 is that the workpiece retainer can adhere the workpiece (e.g. wafer) strongly, stably, and accurately when polishing the workpiece, and the workpiece can easily be peeled off the workpiece retainer by simply heating the workpiece retainer after polishing the workpiece, without requiring washing with any conventional organic solvents and/or surfactants (see, e.g., the specification at page 7, lines 7-13).

Schmitt does not disclose or suggest the use of a temperature-sensitive adhesive for a workpiece retainer of amended claim 1.

Amended claim 1 further recites that the adhesive composition (1) contains a tackifier in an amount of about 10% to about 30% by weight, and (2) has an adhesiveness which is decreased by more than about 90% when heated above about 50°C, with respect to the adhesiveness when measured at 25°C. As disclosed in the specification (page 7, lines 12-27), the limitation with respect to the amount of tackifier allows

for a predetermined level of adhesiveness with respect to the base plate surface to be retained at ordinary temperatures, whereas a rapid decrease in adhesion strength can be caused by heating. A tackifier present in the amount of amended claim 1 does not substantially influence the temperature sensitivity of the polymer. As a result, the adhesive composition according to amended claim 1 exhibits sufficient adhesion strength at ordinary temperatures, while maintaining a good balance between the adhesion strength at ordinary temperatures and the peeling force required at elevated temperatures. Schmitt does not disclose the adhesive composition of amended claim 1 or the limitation with respect to amount of tackifier of amended claim 1. Thus, Schmitt does not disclose every element of amended claim 1 and therefore cannot be considered anticipatory art to amended claim 1.

Claim 5 stands rejected under 35 U.S.C. 103(a) as being obvious over Schmitt in view of Toshiaki JP 09-208924 ("Toshiaki"). Although applicants have canceled claim 5, the first order melt transition range limitation of claim 5 is incorporated into currently amended claim 1. The Examiner contends that Toshiaki teaches an adhesive utilizing side-chain crystallizable polymers with the melting point applicants claim in claim 5 (currently amended claim 1), and that it would have

been obvious to combine the side-chain crystallizable polymers with the melting point of Toshiaki with the adhesive disclosed by Schmitt. Applicants traverse.

Applicants respectfully submit that currently amended claim 1 is patentable over Schmitt in view of Toshiaki. Toshiaki discloses a wafer retainer which employs a pressure-sensitive adhesive (PSA) in which the adhesion of the PSA is reduced or lost by *cooling*, so as to allow removal of the wafer from the retainer. The PSA is temperature activated, wherein increasing the temperature results in greater adhesion. This is exactly the opposite from the presently claimed invention. Applicants teach the use of heating rather than cooling to cause the adhesive to release. Thus, Toshiaki teaches away from the presently claimed invention. Accordingly, amended claim 1 is not rendered obvious by Schmitt in view of Toshiaki.

Claims 6-7 and 9 stand rejected under 35 U.S.C. 103(a) as being obvious over Schmitt in view of Newman United States patent 5,468,231 ("Newman"). Although applicants have canceled claims 7 and 9, the limitations of claim 7 have been incorporated into currently amended claims 6. Cancellation of claim 9 renders moot its rejection. The Examiner contends that it would have been obvious to one of ordinary skill in the art to combine the double-sided tape taught by Newman with the

adhesive taught by Schmitt to obtain the invention specified in claims 6-7 and 9 (amended claim 6). Applicants traverse.

Applicants respectfully submit that currently amended claim 6 is patentable over Schmitt in view of Newman. Neither Schmitt nor Newman, either singly or combined, discloses or suggests the use of a temperature-sensitive adhesive for a workpiece retainer and the adhesive composition as described in amended claim 6.

Claim 10 stands rejected under 35 U.S.C. 103(a) as being obvious over Schmitt in view of Newman as applied to claim 6-7 and 9, and further in view of Toshiaki. Although applicants have canceled claim 10, the first order melt transition range limitation of claim 10 is incorporated into currently amended claim 6.

Applicants respectfully submit that amended claim 6 is patentable over Schmitt in view of Newman and further in view of Toshiaki. As discussed above, amended claim 6 is patentable over Schmitt in view of Newman. Also, for the reasons discussed above with respect to amended claim 1, Toshiaki teaches away from the presently claimed invention.

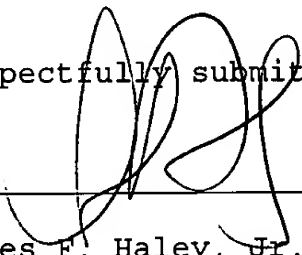
In view of the foregoing essential differences between the cited references and the present invention, the presently claimed invention is not anticipated by Schmitt and

would not be obvious to those skilled in the art over Schmitt
in view of Toshiaki and/or in view of Newman.

Conclusion

In view of the foregoing amendments and remarks,
applicants respectfully request that the Examiner pass this
application to issue.

Respectfully submitted,



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